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7927

EXECUTIVE PRESENTATION

AUTOMATIC DATA PROCESSING SYSTEM

STUDY PHASE I

08 APRIL 1981
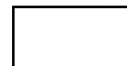
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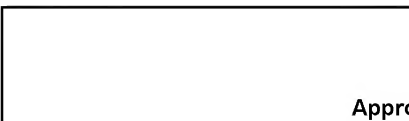
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PURPOSE

- STUDY DO ADPS REQUIREMENTS
- DETERMINE IF SAFE IS COMPATIBLE
- PROVIDE PRELIMINARY BUDGETARY ANALYSIS

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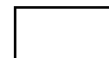Page 2 of 31

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METHODOLOGY

- **REVIEWED DOCUMENTATION**
- **MET WITH IMS AND ODP PERSONNEL**
- **OBSERVED DO ADPS**
- **COMPARED SAFE WITH DO ADPS**
- **MEASURED AREAS OF OVERLAP**

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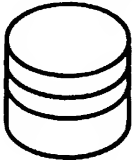
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WHAT IS DO ADPS?

FIELD (GEOGRAPHIC AREAS)		HEADQUARTERS		
		ANALYST PROCESSING		COMPUTER PROCESSING
		FIRST	SECOND	
ELECTRICAL MESSAGES: ● CABLES ● TELEPOUCH **HARDCOPY DOCUMENTS:** ● DISPATCHES ● EXTRA SENSITIVE DOCUMENTS ● MISCELLANEOUS		● REVIEW ● EDIT ● INDEX ● ABSTRACT ● FILE	● NEW ● ADD ● REPLACE ● PURGE ● SECURITY	**LOADING AND MAINTENANCE** ACCESS

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WHAT IS DO ADPS?

ALLSTAR
DATA BASE
OF
INDEX RECORDS

SURNAME
TABLE (SN)

GIVEN NAME
TABLE (GN)

GROUP NUMBER
TABLE (GP)

DOCUMENT
REFERENCE
TABLE (DRT)

FILE
LOCATOR
TABLE (FLT)

OTHER
SOURCES
TABLE (OST)

RETIRED
RECORD
FILES
(CARD)

201 CONTROL
TABLE (201)

BADGE
OFFICE
AUTHORIZATION
TABLE (BOAT)

SUBJECT
OPERATIONAL
ACTIVITY
FILE (SOFA)
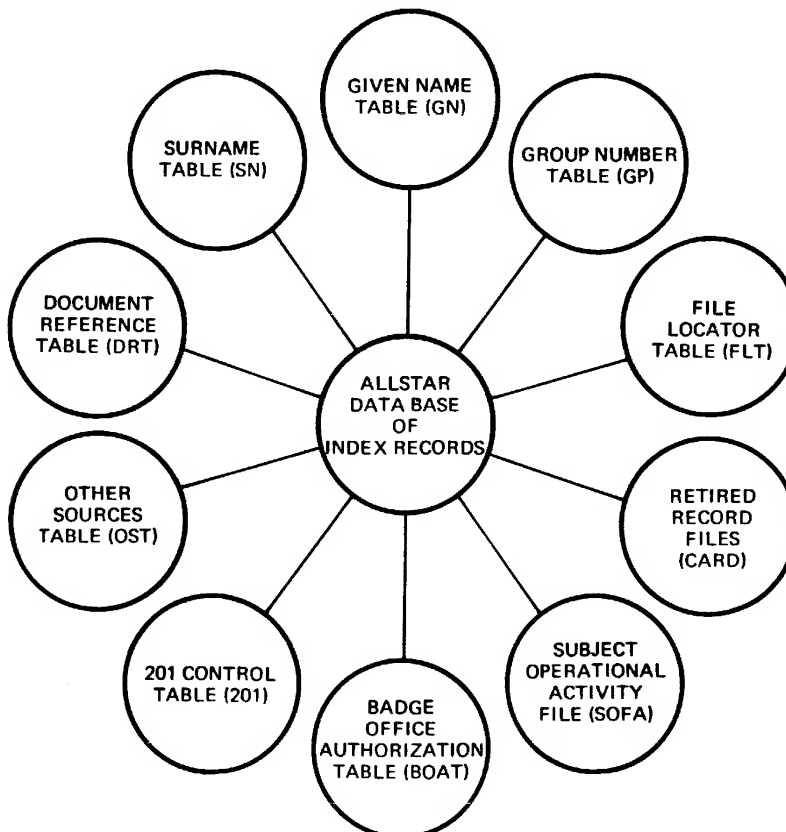
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MAIN USES OF ALLSTAR DATA BASE

DOCUMENT RETRIEVAL
- HARDCOPY
- MICROFORM
- DIGITAL

ALLSTAR

SUBJECT SEARCHES

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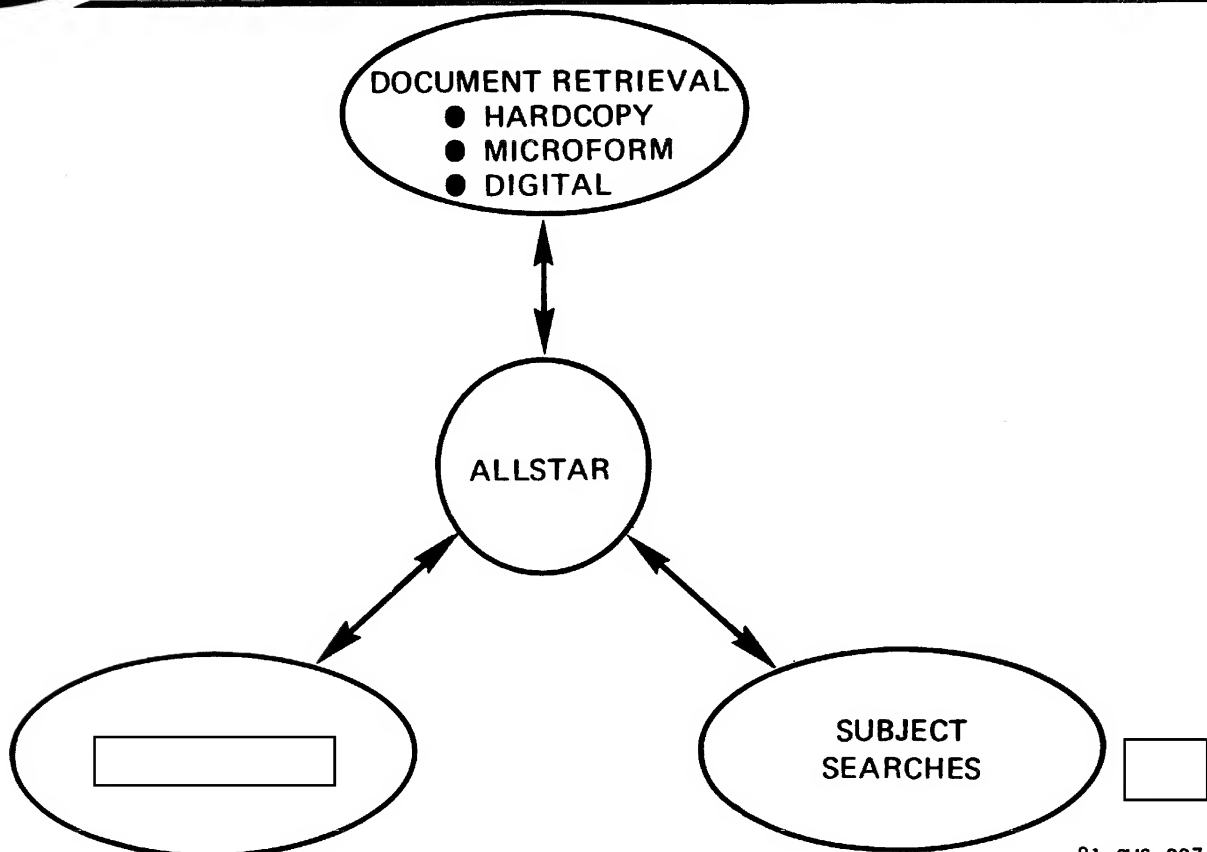
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WHAT IS SAFE?

- SUPPORT TO ANALYST'S FILE ENVIRONMENT (SAFE)

- JOINT CIA (NFAC) AND DIA

25X1
- [   ]

- MAY 1980 – NOVEMBER 1984

- ELECTRONIC PROCESSING, STORAGE, AND SEARCHING OF INTELLIGENCE DATA

- LATEST INFORMATION TECHNOLOGY

- TOTAL SYSTEMS APPROACH   [   ] 25X1

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WHAT IS SAFE?

SAFE WILL:

- SPEED DISTRIBUTION
- SUPPORT INTELLIGENCE ANALYSTS
- PROVIDE GATEWAYS
- INCREASE COMMUNICATION AMONG INTELLIGENCE ANALYSTS WORLDWIDE
- REDUCE PAPER–HANDLING
- INCREASE PRODUCTIVITY

SAFE FEATURES:

- ELECTRONIC MAIL
- AUTOMATIC MESSAGE PROCESSING
- ELECTRONIC INDEX AND SEARCH
- ELECTRONIC FILES BUILDING
- MULTI–TERMINAL ON–LINE ACCESS
- ELECTRONIC MAINTENANCE OF PRIVATE AND CENTRAL FILES
- SECURE TELECONFERENCING

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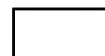
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SAFE AND DO ADPS HAVE
SIMILAR FUNCTIONAL REQUIREMENTS

- HIGH VOLUME INPUT
- ELECTRONIC AND HARDCOPY INPUT
- NON—NUMERICAL DATA
- MULTIPLE INDEXING
- VERSATILE SEARCHING
- RAPID ACCESS TO FILES
- MANY TERMINALS
- FIELD/HQ COMMUNICATION
- FAST RESPONSE TIME
- BLACK WIDEBAND BUS
- DATA BASE MANAGEMENT
- PRIVACY/SECURITY CONTROL
- RELIABILITY/AVAILABILITY/MAINTAINABILITY

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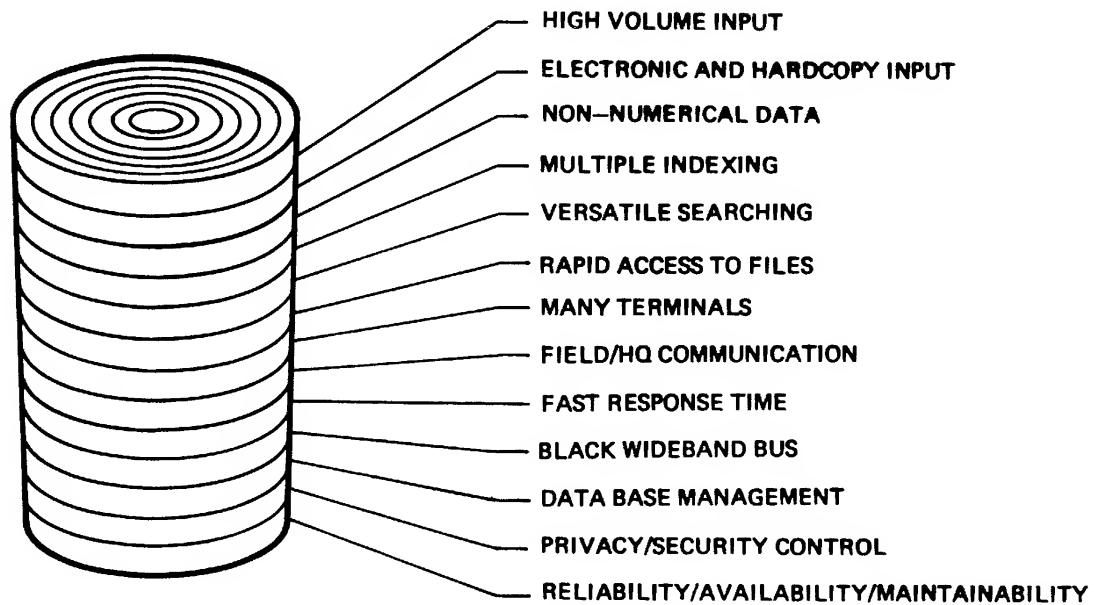
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SAFE AND DO ADPS SHARE THE SAME SERVICE GOALS

PROVIDE TIMELY ACCESS
TO RELEVANT DATA

OBTAIN MAXIMUM
INTELLIGENCE BENEFIT
FROM COLLECTED DATA

MAINTAIN SECURE
CONTROL OF
DATA

INCREASE USER
PRODUCTIVITY

SUPPORT THE USER
WITH LATEST APPLICABLE
DATA SYSTEMS AND
TECHNOLOGY

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PRELIMINARY COMPARATIVE ANALYSIS OF SAFE AND ADPS FUNCTIONAL REQUIREMENTS
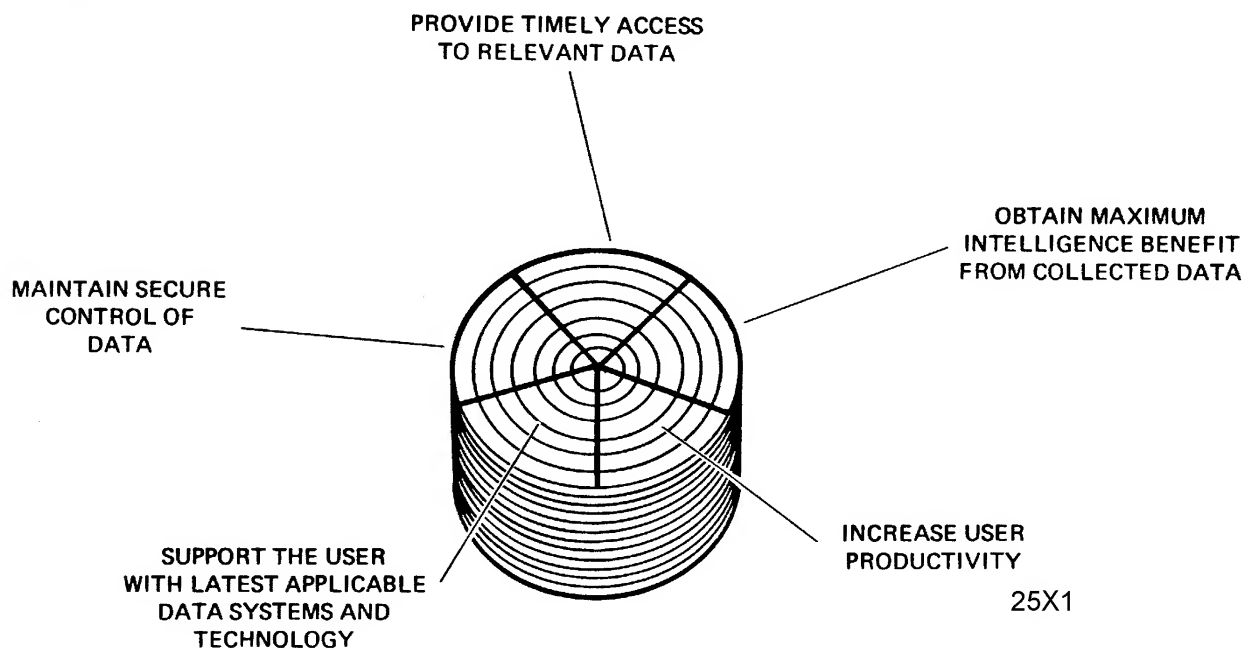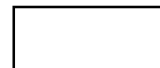
	DESIGNED IN SAFE	REQUIRED FOR DO
INPUT DATA		
PRINTED	√	√
ELECTRICAL	√	√
HIGH VOLUME RATE	√	√
ALPHANUMERIC BUT MOSTLY NON-NUMERICAL	√	√
FILES		
CENTRAL CATALOGS	√	√
DISTRIBUTED	√	√
PRIVATE	√	√
FREE TEXT	√	√
STRUCTURED	√	
SOFTWARE		
DBMS		
FILE MAINTENANCE		
SEARCH AND RETRIEVE		x
AUTOMATIC INDEXING	√	√
INTEREST PROFILE PROCESSING	√	√
PERFORMANCE MONITORING	√	√
SYSTEM MONITORING	√	√

	DESIGNED IN SAFE	REQUIRED FOR DO
DISSEMINATION		
ROU...		√
S		√

SEARCHING	DESIGNED IN SAFE	REQUIRED FOR DO
FREE TEXT	√	√
WORDS AND PHRASES	√	√
PROXIMITY	√	√
DON'T CARES	√	√
NUMBERS AND RANGES	√	√
BOOLEAN COMBINATIONS	√	√
NAME TRACES	NO	√
SPELLING VARIATIONS	NO	√

GR...
MICRO...   25X   ...ERRED
                                 √

LEGEND:
√ SIMILAR CAPABILITY REQUIRED
x REQUIRED, BUT MAYBE DIFFERENT
TBD TO BE DETERMINED

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PRELIMINARY COMPARATIVE ANALYSIS OF SAFE AND DO FUNCTIONAL REQUIREMENTS (CONT)

USER INTERFACE	DESIGNED IN SAFE	REQUIRED FOR DO
TERMINALS (100 OR MORE)	√	√
RAPID RESPONSE RATE	√	X
CONCURRENT ACCESS	√	√
USER LANGUAGE	√	√
SPLIT SCREEN	√	√
HUMAN FACTORS	√	√
WORD PROCESSING		
OPTICAL READ (OCR)	√	√
COMPOSE	√	√
EDIT	√	√
PRINT	√	√
STORE	√	√
REPORT PRODUCTION	√	√
SECURITY		
SOFTWARE CONTROL	√	√
AUDIT TRAILS	√	√
COMPARTMENTATION	√	X
MONITORING	√	√
END-TO-END ENCRYPTION	√	√
TEMPEST-QUALIFIED REMOTE DEVICES	√	√

ARCHITECTURE	DESIGNED IN SAFE	REQUIRED FOR DO
TRI-LEVEL:	√	TBD
GLOBAL	√	X
USER SUPPORT	√	TBD
WORKSTATION	√	√
HARDWARE		
HIGH AVAILABILITY	√	√
PROVEN RELIABILITY	√	√
COMMUNICATIONS		
BLACK WIDEBAND COMMUNICATIONS	√	√
CABLE TV TECHNOLOGY	√	√
BUS AND PROCESSOR INTERFACE UNITS	√	√
BIDIRECTIONAL	√	√
ROOM FOR TERMINAL GROWTH	√	√
MESSAGE SWITCHING	√	√
GATEWAYS TO OTHER SYSTEMS AND NETWORKS	√	X
CABLE DISSEMINATION INTERFACE (CDS)	√	√

25X1

LEGEND:
√ SIMILAR CAPABILITY REQUIRED
X REQUIRED, BUT MAYBE DIFFERENT
TBD TO BE DETERMINED

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HOW COMPATIBLE IS DO ADPS WITH SAFE?

SECURITY
AND
PRIVACY

USER
INTERFACE

SYSTEM
INPUT

SYSTEM
PROCESSING

SYSTEM
OUTPUT INTERFACE
WITH
EXISTING
SYSTEMS
AND FILES

100

80

60

40

% COMPATIBILITY

25X1

20

0

SYSTEMS REQUIREMENTS CATEGORIES

SAFE % COMPATIBILITY FOR SYSTEM INPUT

% COMPATIBILITY

100

ELECTRICAL
MESSAGES

INTERNALLY
CONVERTED
SOURCES

HARDCOPY
SOURCES

80

OTHER
DATA
SOURCES

60

40

25X1

20

0
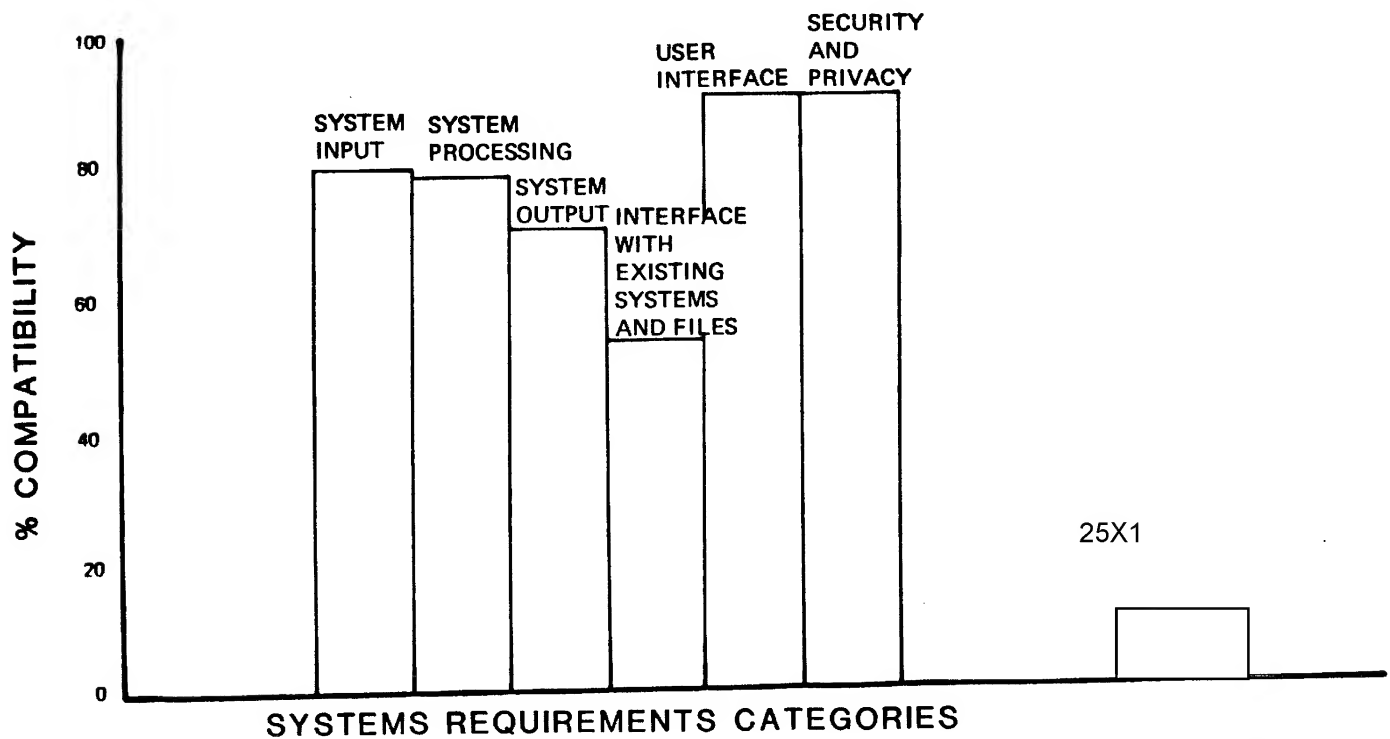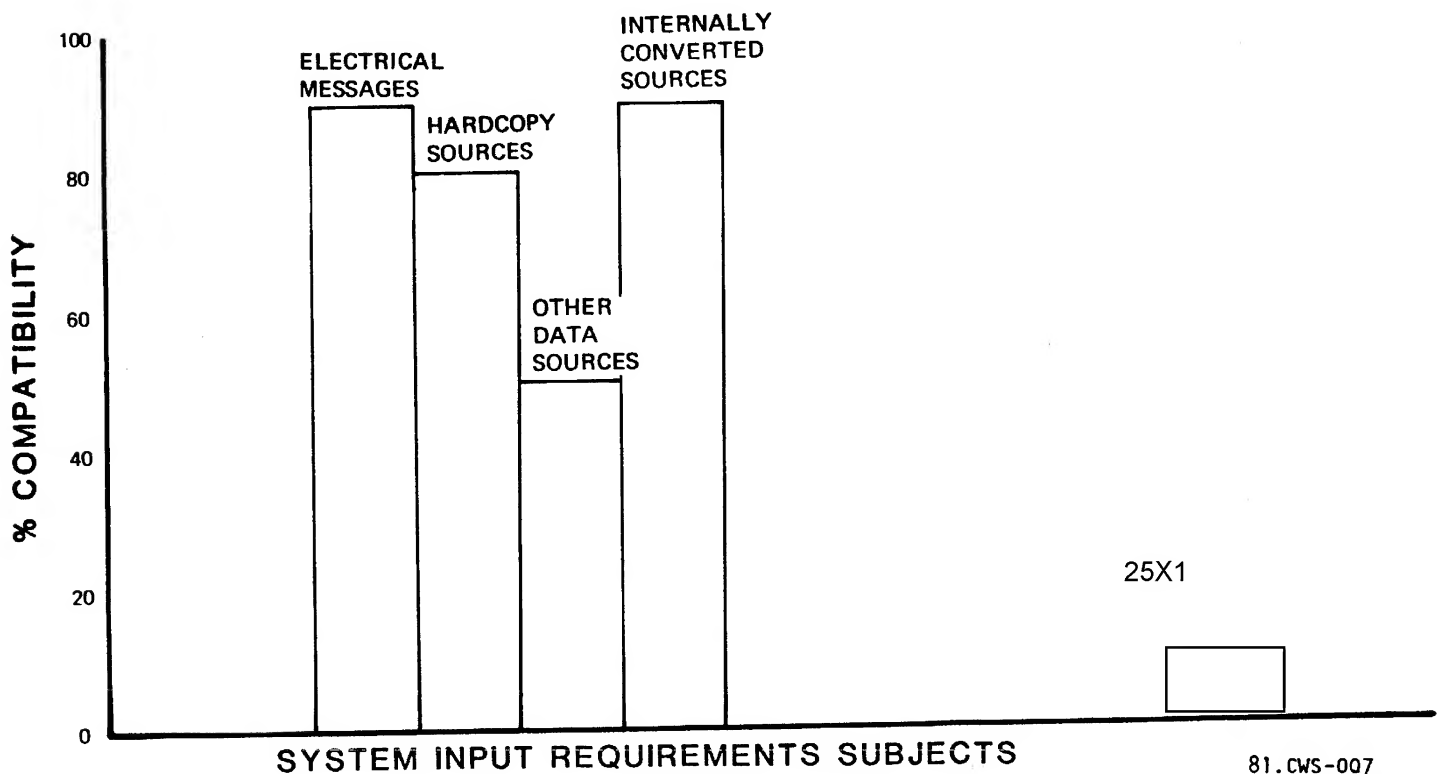
SYSTEM INPUT REQUIREMENTS SUBJECTS

SAFE % COMPATIBILITY FOR SYSTEM PROCESSING

SYSTEM PROCESSING REQUIREMENTS SUBJECTS

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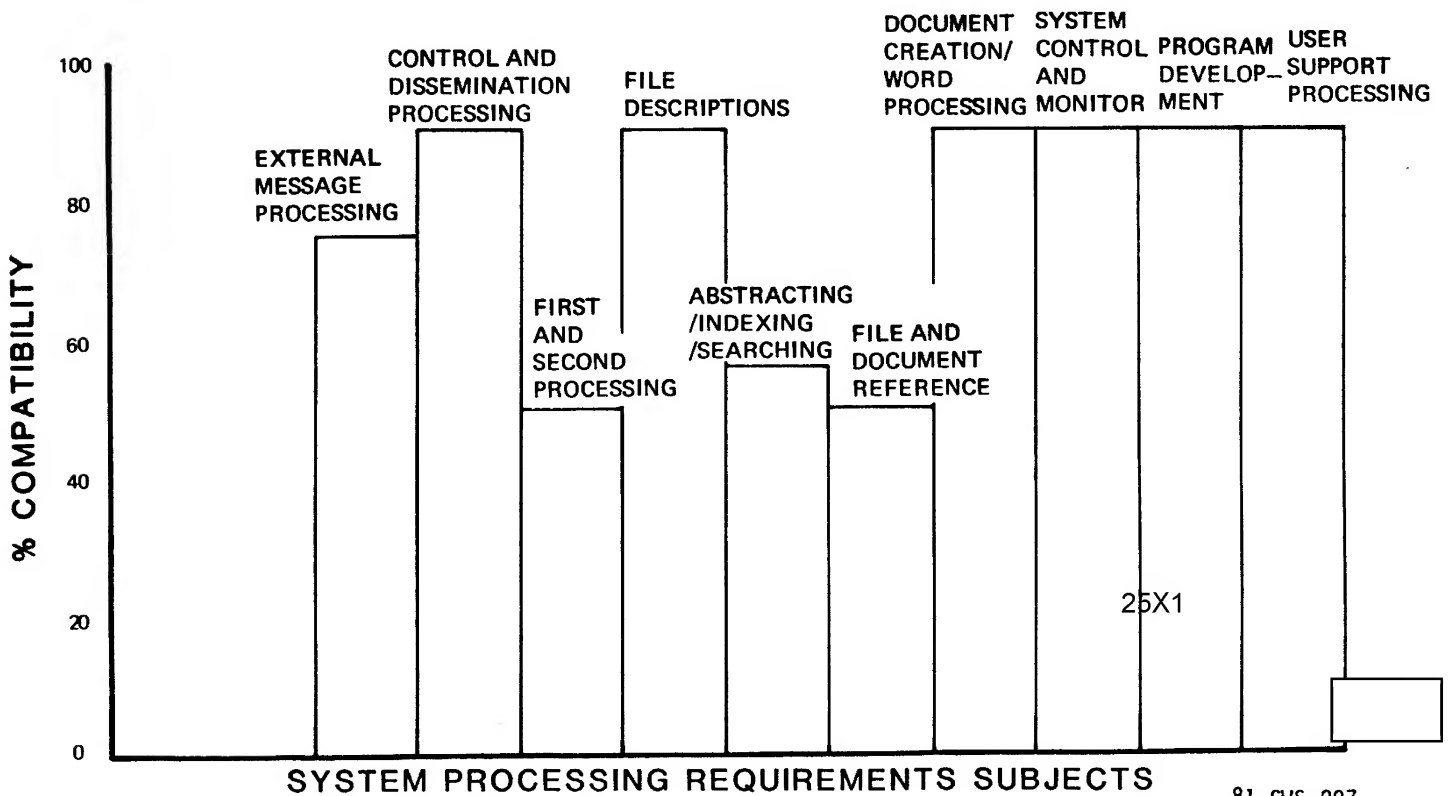
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COST VARIABLES

PROGRAMMATIC	NOMINAL TRACK?		FASTER TRACK?
HARDWARE	IBM?	BURROUGHS?	BOTH?
PERSONNEL	IN—HOUSE?		CONTRACT?
EXISTING ADPS PACKAGES	USE AS IS?		MODIFY?
SAFE TRANSPORTABILITY	% SYSTEM DESIGN?	% SOFTWARE?	% EQUIPMENT

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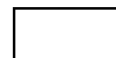
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ASSUMED GFE/GFI FOR BUDGETARY ANALYSIS

- "RED" IBM PROCESSOR WITH ALLSTAR SYSTEM
- BLACK WIDEBAND COMMUNICATIONS SYSTEM
- TERMINALS
- COMET II SYSTEM
- RECORDS MANAGEMENT SYSTEM
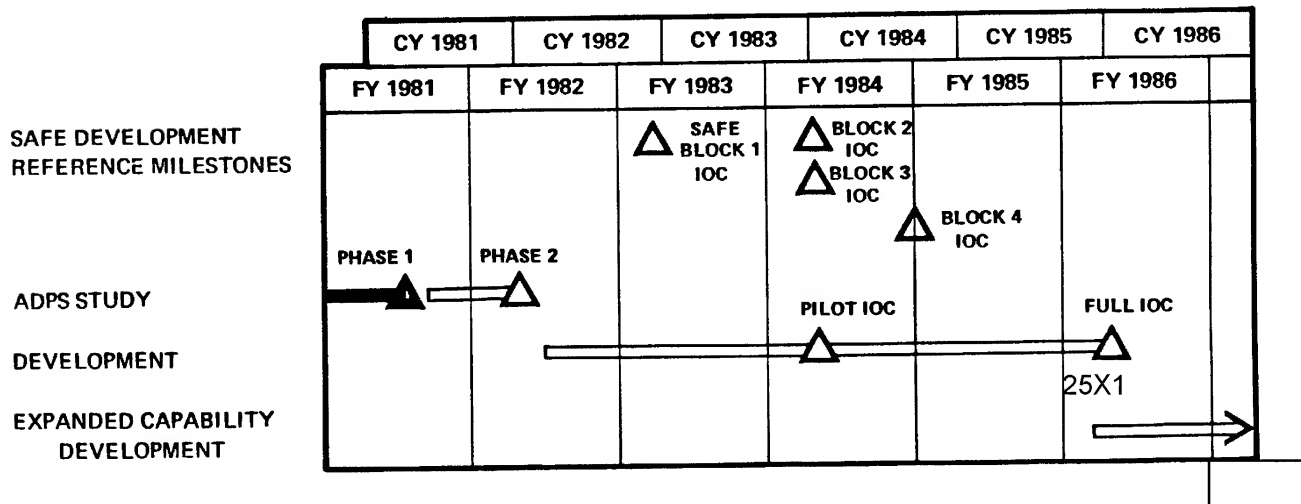- AIMS ELECTRONIC MAIL
- CAMS 2 (DBMS)
- SAFE

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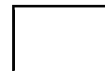
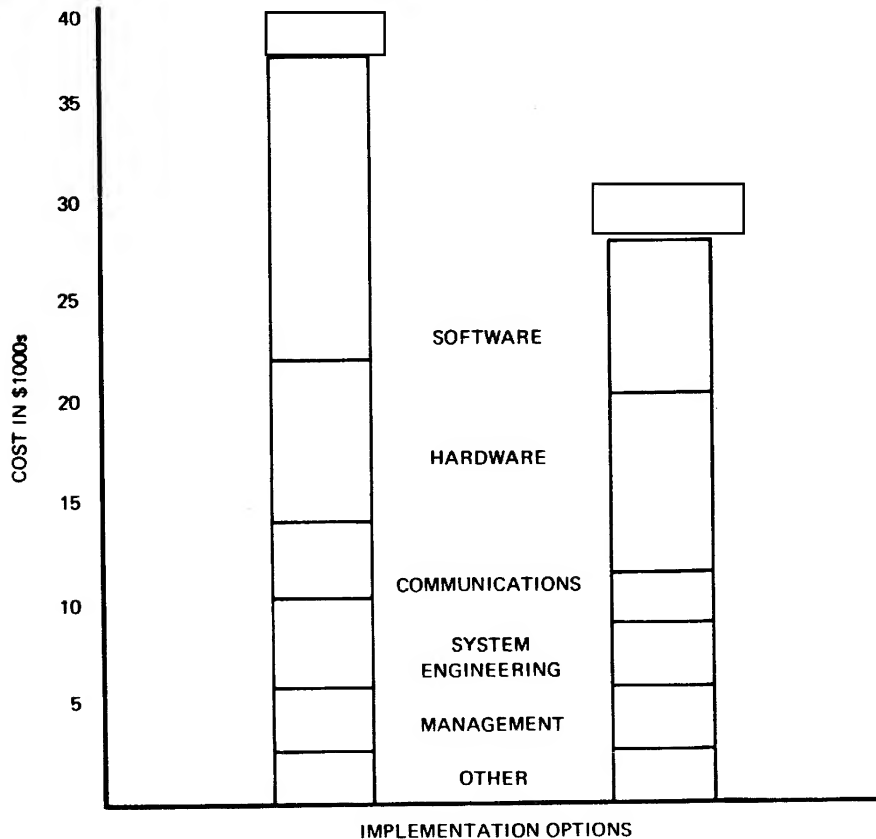SECRET

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BASELINE PROGRAM SCHEDULE

	CY 1981	CY 1982	CY 1983	CY 1984	CY 1985	CY 1986
	FY 1981	FY 1982	FY 1983	FY 1984	FY 1985	FY 1986

SAFE DEVELOPMENT REFERENCE MILESTONES

△ SAFE BLOCK 1 IOC △ BLOCK 2 IOC △ BLOCK 3 IOC △ BLOCK 4 IOC

ADPS STUDY — PHASE 1 △ PHASE 2 △

DEVELOPMENT — PILOT IOC △ FULL IOC △

25X1

EXPANDED CAPABILITY DEVELOPMENT

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BUDGETARY COST SUMMARY

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COST IN $1000s

SOFTWARE

HARDWARE

COMMUNICATIONS

SYSTEM
ENGINEERING

MANAGEMENT

OTHER

IMPLEMENTATION OPTIONS

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PHASE I CONCLUSIONS

SUBSTANTIAL
REQUIREMENTS
OVERLAP

HIGH DEGREE
OF
COMPATIBILITY

IMPORTANT
OTHER
ADVANTAGES
TO BE GAINED

DO'S ADPS REQUIREMENTS
MIRROR THOSE FOUND IN
SAFE

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PHASE I CONCLUSIONS

SUBSTANTIAL
REQUIREMENTS
OVERLAP

HIGH DEGREE
OF
COMPATIBILITY

IMPORTANT
OTHER
ADVANTAGES
TO BE GAINED

MANY OF THE SOLUTIONS
DEVELOPED FOR SAFE'S
COMPUTERS AND COMMUNI-
CATIONS ARE TRANSFERABLE
TO THE DO

25X1

PHASE I CONCLUSIONS

SUBSTANTIAL REQUIREMENTS OVERLAP

HIGH DEGREE OF COMPATIBILITY

IMPORTANT OTHER ADVANTAGES TO BE GAINED

LEVERAGING OF SAFE TECHNOLOGY AND EXPERIENCE

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IN SUMMARY

- SUBSTANTIAL REQUIREMENTS OVERLAP

- HIGH DEGREE OF COMPATIBILITY

- OPPORTUNITY TO LEVERAGE SAFE FOR
  DO BENEFIT

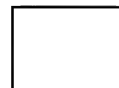- PHASE II IS RECOMMENDED

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AUTOMATIC DATA PROCESSING SYSTEM

PROPOSED STUDY PHASE II

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MAJOR TASKS

STUDY PHASE I
{
● REQUIREMENTS
● COMPATIBILITY
● BUDGETARY ANALYSIS
}

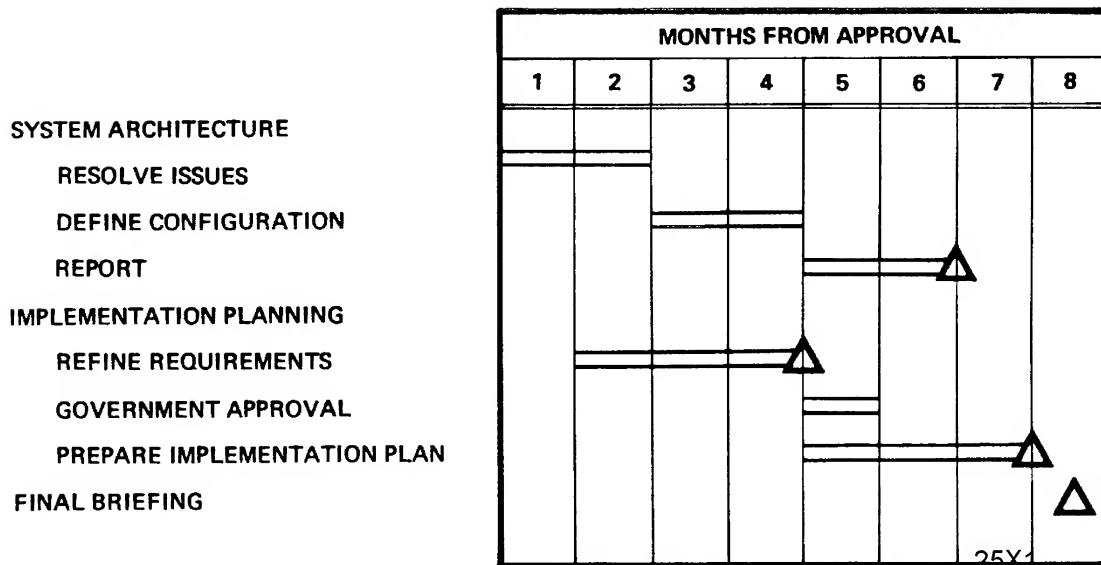STUDY PHASE II
{
O ARCHITECTURE
O IMPLEMENTATION PLAN
}

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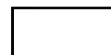
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PHASE II-SCHEDULE

	MONTHS FROM APPROVAL							
	1	2	3	4	5	6	7	8

SYSTEM ARCHITECTURE

   RESOLVE ISSUES

   DEFINE CONFIGURATION

   REPORT

IMPLEMENTATION PLANNING

   REFINE REQUIREMENTS

   GOVERNMENT APPROVAL

   PREPARE IMPLEMENTATION PLAN

FINAL BRIEFING

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HARDWARE AREAS OF SPECIAL INTEREST

- **IBM AND/OR BURROUGHS**

    - **SOFTWARE TRANSPORTABILITY**

    - **OPERATIONS AND MAINTENANCE**

- **TERMINALS**

    - **IBM**

    - **DELTA DATA**

    25X1

    - **WANG**
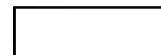
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DEVELOPMENTAL AREAS OF SPECIAL INTEREST

- INTEGRATION OF DEVELOPMENT SYSTEMS

- DATA BASE

  - CONVERSION

  - CENTRALIZATION

- FACILITIES

- SECURITY IMPLEMENTATION

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- UNINTERRUPTED OPERATIONAL CUTOVER

- CRYPTO LEAD TIME

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THE DO ADPS CONCEPTS

- **TOTAL SYSTEM APPROACH**

- **INCORPORATE BEST FEATURES**
  - EXISTING DO SYSTEMS
  - DEVELOPMENT DO SYSTEMS
  - SAFE
  - OTHER

- **INCREASE EFFICIENCY AND PRODUCTIVITY**
  - ACCURACY
  - CONTROL
  - SECURITY
  - RESPONSE
  - FLEXIBILITY

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- **PROVIDE FRAMEWORK FOR GROWTH**

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